



Greenville County Government *Rebuilds*

Greenville County Government is embarking upon a series of energy saving measures that will achieve nearly \$100,000 in annual energy savings. These savings will be reinvested into future energy efficiency projects.

The efforts started when County Facilities Manager, Ronnie Roberts, began to investigate performance contracting and other energy reduction methods. After reading a *Rebuild America* brochure and meeting with the local coordinators from the South Carolina Energy Office, Roberts learned the Energy Office's *Rebuild South Carolina* program could address Greenville County's needs.

After reviewing the county's energy data with Rick Baldauf of the South Carolina Energy Office and Charles Young of Rebuild America, Roberts approached the County Administrator and requested authorization to enter into a partnership with *Rebuild South Carolina*. The first step in this partnership resulted in an energy audit of Greenville County Square, the hub for County government operations.

Energy audits are the backbone of the *Rebuild South Carolina* program. Before spending funds on materials and equipment, it is important to identify the energy efficiency strategies that are most cost effective in a specific situation. An energy audit is a way to gather this information. Each audit provided by the South Carolina Energy Office includes a thorough evaluation of past utility billing, utility rate schedules, operation of energy consuming devices and recommendations of economical energy conservation opportunities based on solid engineering analysis.

Greenville County Square, a former shopping mall, features an estimated 290,000 square feet of local government office space. When first renovated in 1987, top-of-the-line energy efficient products were used, including an estimated 4,000 fluorescent light fixtures. Much of that equipment is now outdated with poor energy ratings by today's standards.

With energy costs of over \$400,000 annually for County Square and over \$1,300,000 annually for all facilities, Property Management believes the energy projects will reduce energy bills, stabilize cost and have investment payback.

Phase I of the Greenville County Square retrofit project is now underway. Greenville County, upon the recommendation of the South Carolina Energy Office, has selected a light-

ing retrofit project for the potential savings of \$56,000 the first year, a quick return on the investment. The project consists of replacement of 4,700 light fixtures with contract cost expected to be in the \$280,000-\$300,000 range. An additional \$32,000 in energy cost savings can be realized at County Square when HVAC/ECMS measures are implemented in Phase II.

The County plans to pursue an aggressive path to energy efficiency following Phase I improvements. Recently completed are audits for the Law Enforcement/Detention Center Complex and Detention Work Camp; audits are planned for the General Sessions and Family Court Facilities. Phase II is expected to include energy management systems in all major facilities and upgrades to HVAC systems and controls.

While the current work focuses on the Greenville County Square project, Roberts expects energy efficient projects will catch the attention of others with the possibility of expanding to other facilities and agencies within Greenville County.

"With energy savings earmarked to help finance future energy projects, the County Square project is but the first step in expanding our efforts to reduce energy consumption in all County-owned and operated facilities, and we are really excited about that," said Ronnie Roberts.

South Carolina Energy Office
1201 Main Street Suite 820
Columbia, South Carolina 29201
(803) 737-8030
1-800-851-8899
FAX (803) 737-9846
<http://www.state.sc.us/energy/>

Notes From the Director

Mitch Perkins



The South Carolina Energy Office begins 2002 in a new division of the Budget and Control Board, the Legal Services and Grants Division. Executive Director of the Board, Frank Fusco, announced in December the formation of several new operational divisions to “flatten” the organizational structure and bring more senior managers to the decision making process.

The Legal Services and Grants Division is directed by Joseph Shine, General Counsel for the Board. Besides the Energy Office, the Division includes the Office of Legal Services, the Office of Insurance Reserve Fund, and the Office of Local Government.

From February to December 2001, the Energy Office was part of the Board’s Office of General Services. Although our stay with the Office of General Services was brief, we were able to establish closer ties with OGS offices responsible for facilities management, state fleet vehicles, and procurement. We also benefited from OGS staff expertise in developing our strategic plan and accountability process.

Our organizational move has been accomplished quickly with a few changes. We moved from the 8th floor to the 6th floor of the SouthTrust Building, however phone numbers and e-mail addresses remain the same. We continue to use our Office of General Services letterhead to avoid wasting several reams of bond paper. Most importantly, we continue to make progress on the milestones in our Strategic Energy Plan adopted in August.

South Carolina and Atlantic Compact Commission To Host Low-Level Waste Forum Meeting in March

The SC Radioactive Waste Disposal Program and the Atlantic Compact Commission are working together to host the Winter Meeting of the Low-Level Waste Forum. The meeting will be held March 10-12 in Charleston.

The Low-Level Radioactive Waste Forum is an incorporated not-for-profit organization composed of representatives appointed by governors and compact chairmen. Governor Hodges appointed Patricia Tangney of the Energy Office as the South Carolina representative last year. Its purposes are to coordinate nationwide plans for radioactive waste disposal, and to provide a conduit for information exchange among the states and federal agencies. The group meets twice a year.

The Forum grew out of meetings sponsored by the National Governor’s Association in the early 1980’s. It has met on a regular basis since 1985.

If you have any questions, please contact Patricia Tangney of the SCEO at (803) 737-8036.

What’s Happening Around the State



Several school districts have recently completed lighting projects under the Schools Initiative Lighting Grant Program. Estimates of annual energy savings for these retrofits are as follows:

Barnwell School District 45, \$18,800
Hampton School District 2, \$1,820
Sumter School District 2, \$19,473
Dillon School District 1, \$9,076
Dorchester School District , \$51,877
Marion School District 3, \$5,075

School Initiative lighting projects are underway at Lee County School District, Dillon School District Two, Marlboro County School District, and Williamsburg County School District.

Pickens County School District has applied for, and been issued, a \$500,000 loan from the South Carolina Energy Office’s ConserFund loan program, through the Bank Of America, for a lighting retrofit at eight of their public schools. The district intends to relamp light fixtures with T-8s and electronic ballasts. The loan is to be repaid from savings over a ten year term. The estimated cost of the project is \$544,000, the annual savings of \$68,600 should payback the project cost in eight years.

**FOR INFORMATION
ON UPCOMING
EVENTS, WORKSHOPS
OR CONFERENCES,
PLEASE VISIT OUR
WEBSITE AT
[WWW.STATE.SC.US/
ENERGY/
TRAINING.HTM](http://WWW.STATE.SC.US/ENERGY/TRAINING.HTM)**

EAC Called Back to Service

In 1992 the South Carolina Energy Efficiency Act formed the State Energy Office “to maximize to the extent practical environmental quality and energy conservation and efficiency, and minimize the cost of energy throughout the state.” The same legislation specified the creation of an Energy Advisory Committee (EAC) made of nineteen members appointed by the Budget and Control Board who would offer reasonable and knowledgeable perspectives on the activities of the SC Energy Office (SCEO). The legislation specifies that these members are to meet at least annually, and at the call of the chair or at the request of a least six members.

Due to a variety of factors, the EAC has not been active for the past two years. While the SCEO has continued to pursue policies and programs that advance energy efficiency and conservation, the absence of a constant group of advisors to consult on variable energy issues and situations has somewhat limited our perspective. The EAC offers an opportunity to confer with representatives from each of our customer bases, enabling us to refine our approach to energy conservation and efficiency.

In June of 2001, the Energy Office worked with the members of the Budget and Control Board to reactivate the EAC. The Energy Conservation and Efficiency Act specifically outlines the members to be included on the committee, and candidates were selected based on past experience and interaction with the Energy Office, as well as their knowledge and understanding of issues relevant to the mission of the Office.

Continued on Page 7

How Does South Carolina Measure Up?

The *2001 South Carolina Energy Use Profile* is scheduled to be released by the end of March 2002. *The Energy Use Profile* is a detailed and comprehensive source of the latest available information on energy consumption, prices, expenditures, sources of supply, and energy use trends. The information is presented in summaries, tables, and graphs in order to provide comparisons among different fuel types and economic sectors, and to show how South Carolina fares in relation to the rest of the United States.

The majority of the data in the *Energy Use Profile* are compiled from publications released by the Energy Information Administration with the U.S. Department of Energy. As can be expected, it is a time-consuming task for the Energy Information Administration to collect and publish such detailed energy data from all fifty states.

The *Energy Use Profile* is updated on a regular basis, contingent on the release of information from the U.S. Department of Energy and other sources in the public domain. Beginning in 2002, the Energy Office will commence offering the latest data on its website until it becomes available in print form. The Energy Office is excited about presenting this new feature on its website. Since energy plays an increasingly critical role in the economy and everyday lives of all South Carolinians, energy trends and patterns presented in the *Energy Use Profile* may serve as a useful interpretative tool for state policy makers, educational institutions, and the general public.

For questions or comments about the South Carolina *Energy Use Profile*, please contact Frank Boyd at fboyd@ogs.state.sc.us



Fiberglass Reclaimer Loan

The SCEO has issued a \$500,000 loan from the South Carolina Energy Office's EnerFund B loan program to Carolina Capital Investment Corporation/J.W. Yount Fiberglass Reclaimers Corporation to use a patented process of recycling waste fiberglass to return it to its virgin state. The funds will be used for equipment and operational expenses.

The process washes the waste material in a chemical solution and, through a variety of heating, separating, and extruding actions, brings the waste material in usable components ready to be re-introduced into the fiberglass making process. A by-product of the process will be nitrogen sludge, which will be sold as a fertilizer or used in other chemical processes.

The project has the potential to reclaim 1,000,000 pounds of waste fiberglass per month, saving landfill space and saving energy in the manufacture of fiberglass.

DSM Waning

The eighth annual report on demand-side activities implemented by the suppliers of electricity and natural gas throughout South Carolina is available. This report summarizes energy conservation information submitted by retail distributors of electricity and natural gas in South Carolina, with a purpose of describing ways to use conservation to meet the needs of South Carolina. This year's report includes information from all 46 electric utilities operating in the state, and 16 of the 19 natural gas suppliers operating in the state.

Demand-side activities are used to reduce the peak demand for electricity and to reduce the overall amount of energy used. Their use reduces harmful emissions, conserves fuel resources, reduces consumer's bills, and reduces the need for additional power plants.

Over the past few years, utilities have been scaling back their demand-side management programs and this trend is expected to continue. The future of electric demand-side programs in South Carolina appears bleak due in part to the continuing discussion about possible deregulation of the electric industry. Although interest in deregulation in the state has waned, there has been no corresponding renewal of interest in demand-side management programs.

In 1999, these demand-side activities reduced peak demand by 4.4 percent, or the equivalent to reducing the need of more than eight combustion turbines. Overall energy consumption was reduced by .4 percent through demand-side activities in 1999, saving consumers about \$18.9 million. This number is actually an increase from 1998. Leaders in energy conservation are Carolina Power & Light, Duke Power, and the Municipalities.

If you would like a copy of this report, or want more information on demand-side activities in South Carolina, please contact Kate Billing of the Energy Office. You can also download a copy from the Energy Office web site, at www.state.sc.us/energy/reports.htm.

Staff are currently working on the ninth annual report, anticipated to be completed in April.

Preparing an Energy Element for the Comprehensive Plan

A study released by the S.C. Department of Natural Resources shows that the amount of developed land in South Carolina increased 60 percent from 1983 to 1998 while the state's population only increased 16 percent. We are using up more land than we need, meaning that we are also using more energy. Sprawled land development means we have to travel farther and more often, using more gasoline and contributing more pollution. More pavement increases the heat surrounding buildings, contributing to a heat island effect and adding to cooling costs. We also use more energy to build a new building rather than renovate older structures with more energy efficient materials and systems.

Recognizing the possibilities for energy efficient local planning, the Energy Office developed a guide titled *Preparing an Energy Element for the Comprehensive Plan*. Passed in 1994, the Local Government Comprehensive Planning Enabling Act requires any jurisdiction that uses zoning ordinances to develop a Comprehensive Plan. The law states that the Plan must give consideration to population, economic development, community facilities, housing, land use, and natural and cultural resources. An energy element is noticeably absent, especially since many opportunities exist to address energy consumption through planning.

Preparing an Energy Element for the Comprehensive Plan describes energy efficient planning strategies ranging from compact and infill development to recycling programs to street and parking design. The guide also provides formats and resources for including an energy element in the Comprehensive Plan.

Planners from city, county and regional government jurisdictions can use the guide. The Energy Office hopes that the guide will serve as an inspiration for local officials, planners and the public to incorporate energy elements into their Comprehensive Plans.

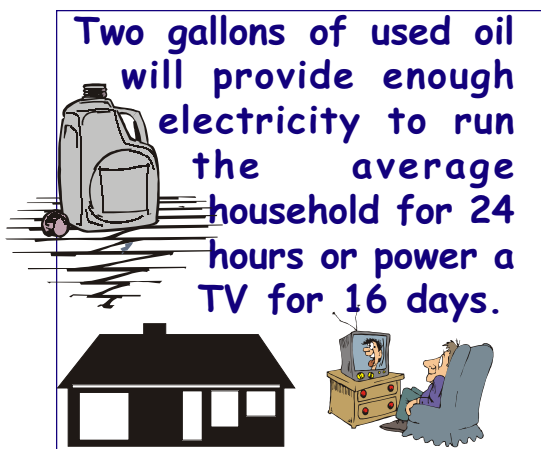
If you would like a copy or more information on the guide, contact Carmen Harper at (803) 737-7177 or charper@ogs.state.sc.us. The guide and information is also available on the web site at www.state.sc.us/energy/public/planning.htm.

GOFER: Making Used Motor Oil Good To The Last Drop

Oil. The petroleum product that provides necessary lubrication for motorists presents a unique challenge once it has done its job and expended its usefulness. It has to be properly disposed of. That's the law in South Carolina. Santee Cooper provides a vital environmental service by collecting it and converting it into energy.

Santee Cooper began collecting used motor oil from the public a decade ago – an effort that has grown to the largest endeavor of its type in South Carolina.

It's called *Give Oil For Energy Recovery* or GOFER. It all began in Moncks Corner at Santee Cooper's corporate headquarters. In July, 1990, five gallons of used motor oil were ceremoniously poured into a 275-gallon tank before a crowd of 50 onlookers.



The idea for GOFER came from the utility's personnel working in the Environmental Services Department. They were looking for a way to observe the 20th anniversary of Earth Day in 1990. Why not collect used oil from the public and see the response – or lack of it.

Over a two-day period in April 1990, about 650 gallons were collected at two sites in Berkeley and Horry counties. This showed the oil was indeed out there along

with the need for proper disposal. Surveys showed that a growing number of individuals were "do-it-yourself" (DIY) changers, removing used oil from their automobiles, trucks and other vehicles.

In June 1991, Santee Cooper announced the program would go statewide. Working with local governments and electric cooperatives, Santee Cooper set about the business of installing oil collection tanks throughout South Carolina.

Since the GOFER program began, approximately 10 million gallons of used oil have been collected. The oil is transported by Santee Cooper to its Jefferies Generating Station near Moncks Corner where it is converted into electric power.

Two gallons of GOFER oil can be turned into enough electricity to run the average home for one day. GOFER oil collections since 1990 have produced enough power to run 1,000 homes for 10 years.

GOFER is one of Santee Cooper's greatest success stories, and a prime benefit of this program is the protection of South Carolina's environment.

For more information about the GOFER program and the location of the most convenient used motor oil collection sites, call 1-800-753-2233 or visit the GOFER Web site at www.scofer.com.

Reprinted with permission from Santee Cooper's PowerSource, Winter 2002.

Residential Energy Auditor Training

In December, the SC Energy Office completed a four-day Residential Energy Auditor training course in cooperation with the South Carolina Association of Heating and Air Conditioner Contractors.

The course was developed with an updated residential energy auditing curriculum, drawing from current published texts as well as window, door, insulation and HVAC manufacturer's information. A residential energy auditor's *Study-Helper* was developed that coordinates with a recently published text on residential energy management.

Twenty-five people were in attendance representing a good residential industry mix from the local utilities, heating and air-conditioning contractors, and private residential service companies as well as representatives of the Energy Office. A three-hour final exam was given. The exam was updated from the 1980's Federal Department of Energy's Residential Conservation Service Exam.

All 25 participants successfully completed the exam.



Enlightening Energy Education Events

“Energy 2 Learn,” a one-day workshop for K-12 teachers is back, but with a new twist, including new classroom materials, and of course, new prizes. The fifth annual workshop, set for June 26, 2002 in Columbia, will feature the latest edition of *Action for a cleaner tomorrow: A South Carolina Environmental Curriculum Supplement*. In addition, the workshop will have the latest on energy education in the classroom, updates on the Palmetto Energy Awards Program (PEAP), and the National Energy Education Development (NEED) project.

This free workshop will feature the premiere of the second edition of the *Science Fair Project Guidebook*, and special sessions on Love a Tree South Carolina, teacher grants, and air and water lessons.

To register for E2L, go to www.scdhec.net/recycle/. The deadline for registration is May 15th, or when 200 teachers have been registered.

Do you know an outstanding South Carolina teacher that promotes energy education in his/her classroom and community? If so, nominate him/her for the South Carolina Energy Educator of the Year. The winner will receive many prizes, but the most coveted is a scholarship to attend the NEED conference in Charleston this July. For more information, contact Renéé Daggerhart of the S.C. Energy Office at 1-800-851-8899 or rdaggerhart@ogs.state.sc.us. The deadline for entry is May 10, 2002.

Speaking of scholarships, several will be available for teachers to attend the conference set for July 20 –24, 2002 in historic Charleston, SC. To apply for a scholarship valued at more than \$800, submit an essay (not to exceed four pages) answering the following questions:

1. Why do you want to attend the NEED conference?
2. What energy education lessons or projects are you currently using in your classroom?
3. How would the information learned and experience gained at the conference benefit you and your students in the classroom?

E-mail your NEED scholarship entry to unique@cetlink.net. The deadline for entry is May 10, 2002.

E2L: The Summer Workshop is sponsored by the S.C. Energy Office, the SC Department of Health and Environmental Control Office of Solid Waste Reduction and Recycling, the U.S. Postal Service, and International Paper.

LINPAC to Showcase New Technology

LINPAC Paper of Cowpens, South Carolina, has been awarded \$500,000 under the National Industrial Competitiveness through Energy, Environment, and Economics (NICE³) Program of the U.S. Department of Energy. The project will demonstrate the commercialization of a unique full-scale, commercial pressurized ozone membrane ultrafiltration system unit for total dissolved solids removal in paper mill process water, a major byproduct of papermaking. The LINPAC mill is a highly respected world-class linerboard mill that uses 100 percent recovered wastepaper as their raw material and feedstock, and operates with zero effluent discharge in a 100 percent closed loop manner. They use a state-of-the-art recycled fiber-based mini-mill that produces 500 tons of premium linerboard and medium per day for use in the packaging industry. The mill has a highly motivated, skilled work force with an excellent record of promoting environmentally-based manufacturing methods and good citizenship in the community. The workforce's proactive stance has resulted in an innovative manufacturing system where both production and environmental requirements are achieved or exceeded. The LINPAC mill is thus the perfect site to implement this new technology's production scale commercial demonstration.



The South Carolina Energy Office which is sponsoring and will monitor the project, estimates that this technology will save LINPAC Paper 27.6 billion BTUs and \$263,000 in natural gas costs annually.

In order to bring new technologies to market, the South Carolina Energy Office partners with businesses to develop proposals for a variety of federal programs. If you would like more information on the National Industrial Competitiveness through Energy, Environment, and Economics (NICE³) Program, contact Jean-Paul Gouffray of the South Carolina Energy Office, at (803) 737-8030.

Continued from Page 3

The Budget and Control Board approved this slate of members on June 12, 2001. The Board also appointed Mr. David Reid as the Chairman of the EAC.

Two representatives of investor-owned electricity companies

1. John Lomax, Vice President of Business & Community Relations for South Carolina, Duke Energy
2. Mitch Williams, Regulatory Affairs Supervisor, Progress Energy Services Company (CP&L)

Two representatives of electric cooperatives

3. David Logeman, Chief Economist, Central Electric Power Cooperative
4. Eddie Plowden, Marketing Manager, Berkeley Electric Cooperative

One representative of the South Carolina Public Service Authority (ex officio)

5. Marc Tye, Wholesale Markets Manager, Santee Cooper

One representative of municipally-owned electric utilities

6. Becky Matthey, Director of Public Utilities, City of Camden

One representative of publicly-owned natural gas companies

7. Willy Stephenson, Sr., President, York County Natural Gas Authority

One representative of investor-owned gas companies

8. Bob Long, General Manager Corporate Planning, SCANA Services, Inc.

One representative of oil suppliers or dealers

9. Ken Cosgrove, President, Piedmont Petroleum Corporation

One representative of propane suppliers or dealers

10. Corky Clark, Executive Director, South Carolina Propane Gas Association

One representative of nonprofit public transportation providers

11. Benedict Shogaolu, Executive Director, Waccamaw Regional Transportation Authority

Two representatives of industrial consumers

12. Jim Painter, Vice President & General Manager, LINPAC Paper Mill
13. Bill West, Vice President of Operations, Fuji Film

Two representatives of commercial consumers

14. Jim Grahl, President, Grahl Electric
15. Jim Herritage, President, Energy Auditors, Inc.

Two representatives of individual consumers (one must be the State Consumer Advocate or their designee, ex officio)

16. Philip Porter, State Consumer Advocate, Department of Consumer Affairs
17. Gerald Caughman

Two representatives of environmental groups

18. Nancy Vinson, State Issues & Water Quality Programs Director, Coastal Conservation League
19. Jim Cumberland, Sierra Club

One at-large member appointed by the Governor

20. David Reid, Vice-President for Business Relations, Palmetto Economic Development Corporation

The first meeting of the Energy Advisory Committee was held on August 28, 2001. At this meeting, members introduced themselves and were given a presentation on the Energy Office's Strategic Plan. The role of the EAC was defined and members had the opportunity to ask questions and discuss Energy Office activities and policies.

The second EAC meeting was held on November 28, 2001. This meeting was an opportunity for Energy Advisory Committee members to get an update on the Energy Office's progress in implementing its Strategic Plan and measuring the success of key indicators. Also, presentations were given on two specific program areas: alternative fuels and emergency planning. The complete minutes and agendas of both meetings are available on the Energy Office's web site at <http://www.state.sc.us/energy/public/EAC/index.html>.

The Energy Office is very excited about the oversight and direction being provided by Chairman Reid and the rest of the Committee. The EAC provides valuable guidance and perspective on policy issues and programs, and we are most appreciative of their time and dedication.

Catch Up On All the Latest SCEO News Online

In an effort to save energy, fuel, postage and trees, the South Carolina Energy Office wants to send the *Energy Connection* to you via the web. Beginning with the Summer 2002 edition (planned for early July), interested readers will receive e-mail notice of the availability of the current newsletter. It is estimated that this small change can save the SC Energy Office approximately \$1,000 for each issue of the newsletter. To increase savings even more in this tight fiscal year, we will also begin a bi-annual newsletter production schedule, a big change from our current quarterly schedule. However, you will still be able to keep up with SCEO happenings and upcoming events by logging on to our website at www.state.sc.us/energy.

Distributing the newsletter in PDF format gives us the freedom to expand the newsletter beyond it's current eight-page format (if necessary) without any additional costs. We can even issue special editions of the *Energy Connection* if necessary, without the limitation of sticking to a set number of issues per year. This does not mean, however, that the SCEO will be "SPAMING" you with junk e-mail. Nor will we be sharing your e-mail address with other groups or agencies.

Hard copies of each newsletter will still be printed. We hope that we can lower this number from our current 1,600 copies of each edition, to 200 printed copies.

If you would like to take advantage of this convenience, please e-mail Reneé Daggerhart at rdaggerhart@ogs.state.sc.us. You will receive confirmation of your change in mail status.

Director Mitch Perkins
Editor Renee Daggerhart

South Carolina Energy Office
1201 Main Street, Suite 600
Columbia, South Carolina 29201

State Budget and Control Board

Jim Hodges, Chairman
Governor

Grady L. Patterson
State Treasurer

James A. Lander
Comptroller General

Hugh K. Leatherman, Sr.
Chairman, Senate Finance Committee

Robert W. Harrell, Jr.
Chairman, House Ways and Means
Committee

Frank W. Fusco
Executive Director

